

APPLICATION FOR UNITED STATES PATENT

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Invention: SPARKING PAD ATTACHMENT FOR SKATEBOARD

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CROSS-REFERENCE TO RELATED APPLICATIONS

The present application derives priority from U.S. Provisional Patent Application 60/398,503 for "SPARKING PAD ATTACHMENT FOR SKATEBOARD"; Filed: July 24, 2002; Inventor: Robert Serling.

BACKGROUND OF THE INVENTION

1. Field of the invention

The present invention relates to a device that attaches to a skateboard, and more particularly, to a two-sided pad with embedded flint that attaches to the various surfaces of a skateboard to generate sparks upon contact with a hard surface.

2. Description of the Background

Skateboarding has become a widely-popular sport particularly with teens and young adults. This is in large part due to the speed, conduciveness to tricks, relatively low cost to participate, and low maintenance. Skateboards can even be used for transportation for short distances. There are various types of skateboards and they have become faster, sleeker and much more ornate and aesthetically pleasing over the years. More recently, skateboarding trick shows and competitions have added another excitement level to the sport.

Due to the popularity, a number of attachable accessories have been introduced to enhance the skateboard "look". For example, radios, toe clips, kick boards, lighting systems, etc. are commercially available.

5 Skateboarders typically change their speed or apply braking force by placing the driving foot on the back portion of the board, which causes the board to shift downward and meet the road surface, generating friction. The sudden change in speed can be visibly or audibly enhanced by special effects that generate colorful sights and/or exciting sounds. One such visual effect is spark generation.

10 There have been a few previous attempts at spark generation from a skateboard. For example, U.S. Patent No. 4,286,806 to Bergstein shows a spark generating mechanism for use with a skateboard that includes a support bracket that rotatably carries a grindstone wheel between two larger actuating wheels and a spark producing element in resilient contact with the grindstone wheel.

15 U.S. Patent No. 4,834,407 to Salvo shows a housing structure comprising a flat base and vertical integral fins, each fin having at least one open ended port for housing the spark emitters. The device is bolted on to the underside of the skateboard.

U.S. Patent No. 6,059,315 to Selph teaches a spark-creating device for attaching to a skateboard, comprising a flint-bearing pad that slides into a receptacle with curled edges to hold
20 the pad in place.

Unfortunately, these known devices are cumbersome and complicated to manufacture and use and relatively expensive to manufacture. They involve replaceable spark-generating flints that fit within a permanent receptacle mounted on or under the board.

Without compromising the special visual effect, it would be greatly advantageous to
25 provide a spark generating device for use on skateboards that is safe, portable, lightweight, compact, easy to use, easily attachable, and inexpensive to manufacture and store.

5 on to the axle of the skateboard with the flint or a flint-like substance embedded in the front side of the pad.

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects, features, and advantages of the present invention will become more
10 apparent from the following detailed description of the preferred embodiments and certain modifications thereof when taken together with the accompanying drawings in which:

FIG. 1 is a view of the underside of a skateboard 2 with various sizes and shapes of sparking pads 10a-c attached according to the present invention.

FIG. 2 is a side view of a skateboard with sparking pads 10 attached according to the
15 present invention.

FIGs. 3 through 5 are a front view, side view and bottom view, respectively, of an end-mounted sparking pad 10a according to the present invention.

FIGs. 6 through 8 are a front view, side view and bottom view, respectively, of a side-mounted sparking pad 10b according to the present invention.

FIGs. 9 through 12 are a front view, side view, bottom view, and perspective side view,
20 respectively, of a truck-mounted sparking pad 10c according to the present invention.

FIGs. 13-16 are a back, top, front, and side view of a second embodiment of a truck-mounted sparking pad 10d according to the present invention.

FIG. 17 is a composite picture of the four step process of applying and using the sparking
25 pads according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The self-adhesive sparking pads for attachment to skateboards according to the present invention generally comprise a base pad having self-adhesive strip on one side for attachment to the skateboard, an opposing second side forming a raised and exposed surface facing outwardly, and a plurality of flint or flint-like contact members embedded in and protruding from the second side of the base pad. The sparking pad is safe, lightweight, portable, easy to attach and remove, and inexpensive to manufacture. The skateboarder creates a shower of sparks from the friction generated between the flint contact members of the sparking pad(s) and a hard surface, such as cement, asphalt or metal. This friction commonly occurs when the skateboarder steps down on the tail of the board to stop it or while performing various tricks and stunts.

FIG. 1 is a view of the underside of a skateboard 2 with three distinct sizes and shapes of sparking pads 10a-c attached according to the present invention. End-mounted sparking pads 10a are adhesively attached at the front and back (tail) ends of the skateboard. These sparking pads are activated to generate a shower of sparks when the skateboarder presses down on the respective front or tail end of the skateboard causing it to generate friction upon contact with the road surface, thereby igniting the embedded flint to generate the sparks. Side-mounted sparking pads 10b are adhesively attached to the sides of the skateboard and are activated by the skateboarder's trick movements to generate friction between the side of the board and a hard surface. Truck-mounted sparking pads 10c are attached to the skateboard "trucks" or axles that hold the wheels of the board. These sparking pads generate sparks when the skateboarder grinds the axle surface on metal rails or street curbs.

5 FIG. 2 is a side view of a skateboard as in FIG. 1 with sparking pads 10 attached according to the present invention, inclusive of end-mounted sparking pads 10a, side-mounted sparking pads 10b and truck-mounted sparking pads 10c.

 FIGs. 3 through 5 are a front view, side view and bottom view, respectively, of an exemplary end-mounted sparking pad 10a according to the present invention. Each end-
10 mounted sparking pad 10a includes a contoured base pad 12 having self-adhesive strip 20 on one side and a plurality of embedded flint or flint-like contact members 22 protruding from the opposing side of the base pad 12. Referring now to FIG. 3, the adhesive strip 20 of plastic sparking pad 10a is exposed by a peel-away protective film and then adheres to the underside of the skateboard. The sparking pad 10a of FIGs. 3-5 is arcuately or semi-circular in shape and is
15 contoured to fit both front and tail ends of the skateboard. The base pad 12 may be fashioned by molding acrylic polyester, polyester, urethane elastomer, silicone elastomer, or like substances and may be manufactured in a variety of colors, shapes, sizes and designs. Various designs may include corporate logos and other branding images such that the device may be used to promote skateboarding manufacturers, distributors, activities, events, and the like. The shape of the base
20 pad and overall sparking pad may vary depending upon the area of the skateboard or skateboard truck to which it is attached. The plurality of flint contact members 22 may be standard lighter flints which are small cylindrical segments, and they are preferably oriented end-to-end radially with respect to the arc of the base pad 12. The flint contact members 22 are evenly spaced along and are embedded (integrally molded into) in the base pad 12 to provide multiple points of
25 contact and a true shower of sparks. Such flint members are mounted in a forward position on the end-mounted and side-mounted sparking pads and in the middle of the truck-mounted sparking pad to generate optimum sparks from fewer flints.

5 FIGs. 6 through 8 are a front view, side view and bottom view, respectively, of a side-mounted sparking pad 10b according to the present invention. Each side-mounted sparking pad 10b includes an elongate base pad 14 having self-adhesive strip 21 on one side and a like plurality of embedded flint or flint-like contact members 22 evenly spaced along and protruding from the opposing side of the base pad 14. As before, the adhesive strip 21 of plastic sparking
10 pad 10b is exposed by a peel-away protective film and then adheres to the underside of the skateboard. It is intended that two opposing side-mounted sparking pads 10b be adhered along the opposing sides of the skateboard. The sparking pad 10b of FIGs. 6-8 is specifically long and thin to fit the opposing sides of the skateboard. As before, the plurality of flint contact members 22 are evenly spaced along and are embedded in the base pad 14 to provide multiple points of
15 contact and a true shower of sparks.

 FIGs. 9 through 12 are a front view, side view, bottom view, and perspective side view, respectively, of a truck-mounted sparking pad 10c according to the present invention. Each truck-mounted sparking pad 10c includes an elongate base pad 15 fashioned in a wide H shape to define four wrap-around tabs 11 to fit the axle of the skateboard, a plurality of self-adhesive
20 strips 17 on one side of the tabs 11, and a plurality of embedded flint or flint-like contact members 22 evenly spaced along and protruding from the opposing side of the base pad 15. Each T-shaped end of the base pad 15 is scored or perforated along fold lines A and B to facilitate wrapping around and adhering to the respective end of the truck axle as shown in FIG. 12. The middle portion of the base pad 15 adhesively attaches by a self-adhesive strip 17 along
25 the length of the axle. The flint contact members 22 are evenly spaced along and are embedded along the length of the middle section of the base pad 15 to provide multiple points of contact and a true shower of sparks upon contact with a metal rail or curb surface.

5 FIGS. 13-16 are a back, bottom, front, and side view of a second embodiment of a truck-mounted sparking pad 10d according to the present invention. Each truck-mounted sparking pad 10d includes an elongate base pad 25 fashioned with a flat outer surface 31, inner surface 33, and two laterally-spaced substantially horseshoe-shaped ends 27 (FIG. 16B) which clip over each end of the axle of the skateboard. Each horseshoe-shaped end 27 can be temporarily moved
10 apart to provide a larger opening in the horseshoe for clipping over the axle. Once fitted over the axle, the sides of each horseshoe-shaped end 27 come together to form a smaller opening. Thus, the truck-mounted sparking pad 27 snaps on to the axle and fits snugly to the bottom of the axle. A plurality of embedded flint or flint-like contact members 22 are evenly spaced along and protruding from the opposing side of the base pad 25. The middle portion 29 of the base pad 25
15 abuts and curves around the length of the axle. The flint contact members 22 are evenly spaced along and are embedded along the length of the middle section 29 of the base pad 25 to provide multiple points of contact and a true shower of sparks upon contact with a metal rail or curb surface.

 FIG. 17 is a composite picture of the four step process of applying and using the sparking
20 pads according to the present invention. At step 100, the skateboarder removes the protective strip from the adhesive side of the plastic sparking pad 10. The skateboarder chooses the particular shape and size and number of the sparking pads 10a-c to conform with the section of the skateboard that he wants to spark. At step 200, the skateboarder attaches the sparking pad 10 to the skateboard by pressing the adhesive side against the skateboard surface. The skateboarder
25 uses the skateboard at step 300. At step 400, the skateboarder, steps down on the tail end of the skateboard, which creates friction between the skateboard sparking pad and the road surface thereby generating sparks from the pad's embedded flint.

5 It can readily be seen that the skateboard spark generating devices 10a-d according to the present invention can be easily attached to the skateboard, are inexpensive to manufacture, and are safe and easy to use. Moreover, the pads 10a-d may incorporate various colors, shapes, designs, and logos and may be used for promotional purposes.

10 Having now fully set forth the preferred embodiments and certain modifications of the concept underlying the present invention, various other embodiments as well as certain variations and modifications of the embodiments herein shown and described will obviously occur to those skilled in the art upon becoming familiar with said underlying concept. It is to be understood, therefore, that the invention may be practiced otherwise than as specifically set forth in the appended claims:

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